Formative Assessment Task

2nd Grade: Measurement and Data

## 2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.

### 2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

**Materials:** rulers, classroom objects of various lengths, task card (attached)

**Directions:**

1. Students will estimate the length of five different classroom objects to the nearest centimeter. Record your estimates.

2. Students will use a ruler to measure the length of each object to the nearest centimeter.

3. Students record their findings using pictures, numbers, and words. Which object is the longest? Which object is the shortest?

4. Student will find the difference in length between the shortest and longest objects.

5. Student will explain the strategy used to find the difference in length between the shortest and longest objects.

6. Have student find the difference between other objects in centimeters.

*Option: Complete using inches, students can work in partners as well.*

**Considerations:**

Does the student use the ruler correctly?

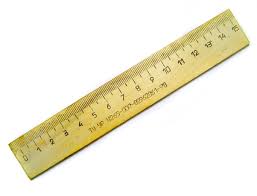
Is the student able to line up the ruler?

Does the student understand how to find the difference between the shortest and largest item?

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**Materials:** rulers, classroom objects of various lengths

1. Work with a partner. Estimate the length of five different classroom objects to the nearest centimeter. Record your estimates.

2. Use a ruler to measure the length of each object to the nearest centimeter.

3. Record your findings using pictures, numbers, and words. Which object is the longest? Which object is the shortest?

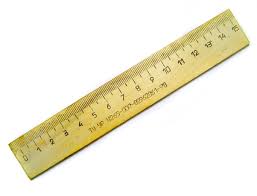
4. Find the difference in length between the shortest and longest objects.

5. Explain the strategy you used to find the difference in length between the shortest and longest objects.

:Screen shot 2012-07-25 at 9.47.14 AM.png **Materials:** rulers, classroom objects of various lengths

1. Work with a partner. Estimate the length of five different classroom objects to the nearest inch. Record your estimates.

2. Use a ruler to measure the length of each object to the nearest inch.

3. Record your findings using pictures, numbers, and words. Which object is the longest? Which object is the shortest?

4. Find the difference in length between the shortest and longest objects.

5. Explain the strategy you used to find the difference in length between the shortest and longest ob

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| Teacher notes:  Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.  Students who demonstrate mastery write a reasonable measurement and can accurately measure items using centimeters from the classroom. For full accomplishment students then need to determine which object is the shortest and which object is the longest and then find the difference in length between the shortest and longest objects.  Students who demonstrate substantial accomplishment write a reasonable measurement and can accurately measure items using centimeters from the classroom. They can also determine which object is the shortest and which object is the longest. But they may have difficulty finding the difference in length between the shortest and longest objects.  Students who demonstrate needs improvement may accurately measure their objects but find the total of the two lengths instead of the difference. Or students who need improvement may measure with inches instead of centimeters. |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Not yet:** Student shows evidence of misunderstanding, incorrect concept or procedure | | | **Got It:** Student essentially understands the target concept. | | | | **NEEDS IMPROVEMENT**  **(N)** | | **WITH ASSISTANCE**  **(W)** | | | **INDEPENDENT**  **(I)** | | **0 Unsatisfactory:**  **Little Accomplishment**  The task is attempted and some mathematical effort is made. There may be fragments of accomplishment but little or no success. Further teaching is required. | **1 Marginal:**  **Partial Accomplishment**  Part of the task is accomplished, but there is lack of evidence of understanding or evidence of not understanding. Further teaching is required. | | **2 Proficient:**  **Substantial Accomplishment**  Student could work to full accomplishment with minimal feedback from teacher. Errors are minor. Teacher is confident that understanding is adequate to accomplish the objective with minimal assistance. | **3 Excellent:**  **Full Accomplishment**  Strategy and execution meet the content, process, and qualitative demands of the task or concept. Student can communicate ideas. May have minor errors. | |   Adapted from Van de Walle, J. (2004) Elementary and Middle School Mathematics: Teaching Developmentally. Boston: Pearson Education, 65 |